

Mild and Highly Efficient Method for Synthesis of 14-Aryl(alkyl)- 14H-dibenzo[a,j]xanthenes and 1,8-Dioxooctahydroxanthene Derivatives Using Pentafluorophenyl Ammonium Triflate as a Novel Organocatalyst

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摘要 A simple and facile synthesis of 14-aryl and alkyl-14H-dibenzo[a,j]xanthenes and 1,8-dioxooctahydroxanthene derivatives has been successfully developed by treatment of β -naphthol or dimedone with aldehydes under mild conditions in the presence of a pentafluorophenyl ammonium triflate (PFPAT) organocatalyst. These catalytic condensation reactions represent green chemical processes and the PFPAT organocatalyst is air-stable, cost-effective, easy to handle, and easily removed from the reaction mixtures.

关键词: [pentafluorophenyl ammonium triflate](#) [organocatalyst](#) [xanthene](#) [\$\beta\$ -naphthol](#)

Abstract: A simple and facile synthesis of 14-aryl and alkyl-14H-dibenzo[a,j]xanthenes and 1,8-dioxooctahydroxanthene derivatives has been successfully developed by treatment of β -naphthol or dimedone with aldehydes under mild conditions in the presence of a pentafluorophenyl ammonium triflate (PFPAT) organocatalyst. These catalytic condensation reactions represent green chemical processes and the PFPAT organocatalyst is air-stable, cost-effective, easy to handle, and easily removed from the reaction mixtures.

Keywords: [pentafluorophenyl ammonium triflate](#), [organocatalyst](#), [xanthene](#), [\$\beta\$ -naphthol](#)

收稿日期: 2011-12-29; 出版日期: 2012-05-04



引用本文:

Samad KHAKSAR, Nosratollah BEHZADI .Mild and Highly Efficient Method for Synthesis of 14-Aryl(alkyl)- 14H-dibenzo[a,j]xanthenes and 1,8-Dioxooctahydroxanthene Derivatives Using Pentafluorophenyl Ammonium Triflate as a Novel Organocatalyst[J] 催化学报, 2012,V33(6): 982-985

Samad KHAKSAR, Nosratollah BEHZADI .Mild and Highly Efficient Method for Synthesis of 14-Aryl(alkyl)- 14H-dibenzo[a,j]xanthenes and 1,8-Dioxooctahydroxanthene Derivatives Using Pentafluorophenyl Ammonium Triflate as a Novel Organocatalyst[J] Chinese Journal of Catalysis, 2012,V33(6): 982-985

链接本文:

[http://www.chxb.cn/CN/10.1016/S1872-2067\(11\)60393-8](http://www.chxb.cn/CN/10.1016/S1872-2067(11)60393-8) 或 <http://www.chxb.cn/CN/Y2012/V33/I6/982>

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